

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2004 (06.05.2004)

PCT

(10) International Publication Number
WO 2004/037385 A1

(51) International Patent Classification⁷: **B01D 37/04**,
C12M 1/12, 3/06, B01L 3/00, B01D 61/20, 61/22

F-67170 Wahlenheim (FR). ENGEL, Bertrand [FR/FR];
2A rue Principale, F-67440 Dimbsthal (FR). CLAUSS,
Christian [FR/FR]; 4, rue du Grand Bailli, F-67210
Obernai (FR).

(21) International Application Number:
PCT/IB2003/005116

(22) International Filing Date: 24 October 2003 (24.10.2003)

(74) Agent: SANTARELLI; 14 avenue de la Grande Armée,
B.P. 237, F-75822 Paris Cedex 17 (FR).

(25) Filing Language: English

(81) Designated States (national): JP, US.

(26) Publication Language: English

(84) Designated States (regional): European patent (AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(30) Priority Data:
0213482 28 October 2002 (28.10.2002) FR

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

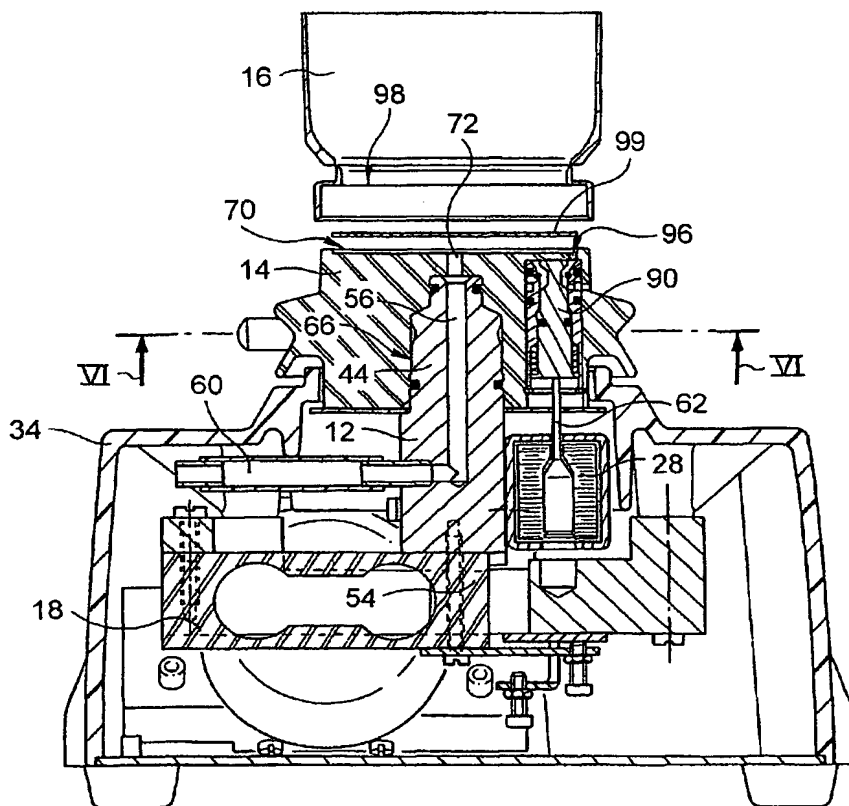
(71) Applicant (for all designated States except US): MILLI-
PORE CORPORATION [US/US]; 290 Concord Road,
US-Billerica, MA 01821-3405 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): OLIVIER,
Stéphane [FR/FR]; 11 chemin du Rosenmeer, F-67560
Rosheim (FR). GEYER, Jérôme [FR/FR]; 2 rue des Pres,

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: A FILTER DEVICE INTEGRATING SAMPLED VOLUME CONTROL



(57) Abstract: The invention relates to a drainage device for a filter unit for microbiological testing of liquids, said drainage device including a mechanical support (10), which is adapted to receive a filter unit (16), and an suction pump (22) connected to said mechanical support to aspirate a liquid substance contained in said filter unit. The device comprises: a weight sensor (18) on which said mechanical support is mounted; a user interface (26) for entering data relating to drainage and/or said liquid substance; and a control unit (24) connected to said suction pump (22), the weight sensor (18) and said user interface (26), said control unit (24) being adapted to determine, from said data, at least a first weight corresponding to a first representative signal; and, when said weight sensor (18) supplies a signal corresponding to said first signal, said control unit (24) starts operation of said suction pump (22) so as to aspirate said liquid substance contained in said filter unit (16).

INTERNATIONAL SEARCH REPORT

PCT/IB 03/05116

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D37/04 C12M1/12 C12M3/06 B01L3/00 B01D61/20
B01D61/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D C12M B01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/068580 A (ENGENSEN DIEDERIK ;BIO MERIEUX INC (US); DIGUISEPPI JAMES L (US)) 6 September 2002 (2002-09-06) page 10, line 22 - page 11, line 17; figures 1-3	1
A	US 5 306 420 A (BISCONTE JEAN-CLAUDE) 26 April 1994 (1994-04-26) abstract	1
A	US 6 133 045 A (CHEN CHIH-CHUNG ET AL) 17 October 2000 (2000-10-17) figures 2,11,15,16	1
A	WO 01/048141 A (LEMONNIER JEAN ;MILLIPORE SA (FR)) 5 July 2001 (2001-07-05) abstract; figures 2,8,10	1
-/--		

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

18 February 2004

Date of mailing of the international search report

27/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hoffmann, A

INTERNATIONAL SEARCH REPORT

PCT/IB 03/05116

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 358 730 B1 (KANE JEFFREY) 19 March 2002 (2002-03-19) abstract; figure 11 -----	1

INTERNATIONAL SEARCH REPORT

PCT/IB 03/05116

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02068580	A	06-09-2002	WO 02068580 A2	06-09-2002
			US 2002127630 A1	12-09-2002
US 5306420	A	26-04-1994	FR 2657543 A1	02-08-1991
			AT 110291 T	15-09-1994
			DE 69103621 D1	29-09-1994
			DE 69103621 T2	23-03-1995
			DK 513139 T3	05-12-1994
			EP 0513139 A1	19-11-1992
			WO 9111245 A1	08-08-1991
			JP 3041641 B2	15-05-2000
			JP 5504405 T	08-07-1993
US 6133045	A	17-10-2000	NONE	
WO 0148141	A	05-07-2001	FR 2802942 A1	29-06-2001
			WO 0148141 A1	05-07-2001
			AU 1725601 A	09-07-2001
			EP 1240308 A1	18-09-2002
			JP 2003518375 T	10-06-2003
			US 2002192739 A1	19-12-2002
US 6358730	B1	19-03-2002	EP 1012327 A1	28-06-2000
			JP 2001510999 T	07-08-2001
			WO 9832875 A1	30-07-1998